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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,067	01/27/2006	Wolfgang Doring	WAS0757PUSA	9817
22045 7590 09/25/2008 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075				
EXAMINER				
BERCH, MARK L.				
ART UNIT		PAPER NUMBER		
1624				
MAIL DATE		DELIVERY MODE		
09/25/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/595,067

Applicant(s)

DORING ET AL.

Examiner

/Mark L. Berch/

Art Unit

1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

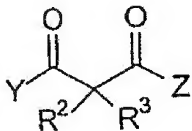
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "a 1,3-dicarbonyl compound" is of unclear scope. Claim 16 is noted, but unless $Y=Z=H$, the carbonyls are not at the 1 and 3 positions. For example, if $X=Y=\text{methyl}$, the carbonyls are at the 2 and 4 positions. Similarly, in claim 16, the term "1,3 diketone" does not make sense. If the oxo is in the 1-position, it would be an aldehyde at that position, not a ketone. Is 1, 3 dioxo-butane covered by this term? There is no clear answer to such a question. The compound formic anhydride $H-C(O)-O-C(O)-H$, is a 1,3-dicarbonyl compound. Is that covered? The traverse is unpersuasive and confused. Applicants state, "Formic anhydride is certainly a 1,3- dicarbonyl compound, as indicated by the formula on page 11, where Y and Z may be H." But formic anhydride does not fall within the page 11 formula. That is as follows:



Formula (3)

Formic anhydride is HC(O)-O-C(O)H. Such a compound (or acetic anhydride, when X=Y=methyl) is very different from the esters and ketones named on page 12, all of which do fit into that formula. But more broadly, the scope of the term, beyond that of Formula 3, is unclear. The “attachment I” reference cannot be relied on. Applicants have not given a proper citation, and it is impossible to tell where this came from. Further, nowhere does it actually define the term. In the above formula, could R² and R³ combine to form oxo? Are compounds which cannot enolize, e.g. R²-R³=methyl be included? The specification itself does not define R³.

Claims 13, 14, 18, 20, 27 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. X as alkoxy or aryloxy is claim 14 and 27 is not correct. These are not leaving groups.

The traverse is unpersuasive. Applicants refer to “the protonated form” on page 314 of the cited reference. If a protonic acid were strong enough to protonate the ether, then the protonated alkoxy could form a leaving group, but such an acid would allow the cleavage of the dioxolane ring itself, which is itself an ether (indeed, as a ketal, its

actually an activated ether). At any rate, it does not appear that such a reaction could possibly be done under condition of a strong protonic acid.

2. Likewise, alkyl in claim 18 is not a protecting group for amine. The traverse is unpersuasive and again is confused. An Alkyl radical would be something like methyl. The material on page 388 are either the vinyl group, or activated ethyl groups.
3. R1 as alkyl is mistaken in claim 13. Methyl is not a protective group for hydroxyl, in the context here. The traverse is unpersuasive. The reference is noted; it is agreed that the ether can be cleaved, but these compounds are themselves ethers (the dioxolane ring), and cleaving the ether protecting group is going to open the ring, especially since, as a ketal, its actually an activated ether.
4. Claim 20 is unclear. The claim just says that R1 is removed, but other protecting groups R8-R11, if present, were also removed. The traverse is unpersuasive. The problem is that formula (6) is generated only if R8-R11, if present, were also removed. Thus there are two possibilities here: a) claim 20 process ALSO involves the removal of the amine protecting groups, in which case, the claim must say that these are being removed at the same time that R1 is removed or b) claim 20 is designed ONLY to cover a situation in which the amine protecting groups had already been removed, so that in fact, only R1 is actually being removed. It is impossible, with the present wording, to tell which situation the claim is intended to cover. Applicants need to decide whether the claim is or is not designed to cover a step of removing the amine protecting groups.

Claim 14 rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for other choices, does not reasonably provide enablement for X as alkoxy or aryloxy. The specification does not enable any person skilled in the art to which

it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Claim 18 rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for other choices, does not reasonably provide enablement for alkyl choices. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

These will not function as leaving groups under the conditions of this reaction. As is noted in point 4 above, these are not normal leaving groups. These cannot be cleaved without destroying the molecule itself.

The references have been considered, but to be made of record, applicants must prepare a proper PTO-1449.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Mark L. Berch/ whose telephone number is 571-272-0663. The examiner can normally be reached on M-F 7:15 - 3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on (571)272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark L. Berch/
Primary Examiner
Art Unit 1624

9/25/2008